

CONVENTIONAL MECHANICAL LOCK CYLINDERS AND KEYS WITH  
ELECTRONIC ACCESS CONTROL FEATURE

Abstract of the Disclosure

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5 A mechanical key and lock cylinder with mechanical bittings  
include an electronic access control feature, with minimal  
modification and without affecting or interfering with the  
mechanical function of the key and cylinder. A small, low-  
profile memory cell is embedded in a recess or later hole through  
the key, with one cell terminal grounded to the key and the other  
having a contact extension. When the key is inserted into the  
keyway of the cylinder plug, the ground connection is made with  
the cylinder and the memory cell contact extension engages a  
spring-loaded contact of a connector unit which extends from the  
cylinder plug. An insulated wire carries the conductive path out  
of the lock cylinder. The key remains of very low profile, and  
the cylinder plug is modified only by a small longitudinal bore  
from front to rear. Existing mechanical locks and cylinders can  
easily be retrofitted with the electronic access control feature.  
In another embodiment the key has its contacts on one or both  
sides of the key blade rather than at the shoulder of the key  
head. The memory cell device in or on the key head can include a  
microprocessor, battery and read/write memory.

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